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10/519021

PATENT

Docket No. 290.00320120

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):	Gil U. LEE et al.)	Group Art Unit:	Unknown
)		
Serial No.:	10/519,021)	Examiner:	Unknown
Confirmation No.:	3299)		
)		
Filed:	December 22, 2004)	International Filing Date:	June 30, 2003
For:	MAGNETIC NANOMATERIALS AND METHODS FOR DETECTION OF BIOLOGICAL MATERIALS			

INFORMATION DISCLOSURE STATEMENT

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In compliance with the duty imposed by 37 C.F.R. § 1.56, and in accordance with C.F.R. §§ 1.97 *et. seq.*, the materials enclosed herewith are brought to the attention of the Examiner as possibly being of interest in connection with the above-identified patent application. Per M.P.E.P. § 609, the information cited in the present Information Disclosure Statement shall not be construed to be an admission that the information is, or is considered to be, material to patentability. Consideration of each of the documents listed on the attached 1449 form(s) is respectfully requested. Pursuant to the provisions of M.P.E.P. §609, Applicants further request that a copy of the 1449 form(s), marked as being considered and initialed by the Examiner, be returned with the next Official Communication.

Also enclosed is a copy of the International Search Report filed in connection with International Patent Application No. PCT/US03/05588, which contains subject matter related to this application.

This application is a continuation-in-part of U.S. Patent Application Serial Nos. 10/373,600, filed 24 February 2003 and 10/373,609, also filed 24 February 2003. In accordance with 37 C.F.R. §1.98(d), copies of documents previously cited by or submitted to the U.S. Patent and Trademark Office in connection with Applicants' prior application(s) listed above, are not included herewith.

Information Disclosure Statement

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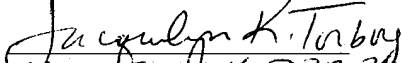
For: MAGNETIC NANOMATERIALS AND METHODS FOR DETECTION OF BIOLOGICAL MATERIALS

It is believed that no fee is due, as this Information Disclosure Statement is filed prior to the receipt of any Action on the merits. However, in the event a fee is due, please charge any fee or credit any overpayment to Account No. 13-4895.

The Examiner is invited to contact Applicants' Representatives at the below-listed telephone number, if they can be of any assistance during prosecution of the present application.

CERTIFICATE UNDER 37 C.F.R. 1.10:

The undersigned hereby certifies that this paper is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR §1.10 on the date indicated below and is addressed to Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.


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Respectfully submitted

By

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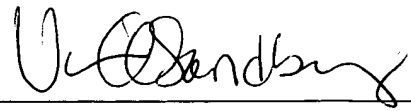
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U.S. PATENT DOCUMENTS

Examiner Initial	Copy Enclosed	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
		3,970,518	7/20/1976	Giaver			
		3,985,649	10/12/1976	Eddelman			
		4,070,246	1/24/1978	Kennedy et al.			
		4,115,535	9/19/1978	Giaver			
		4,123,396	10/31/1978	Rembaum et al.			
		4,152,210	05/01/1979	Robinson et al.			
		4,157,323	06/05/1979	Yen et al.			
		4,169,804	10/02/1979	Yapel			
		4,177,253	12/04/1979	Davies et al.			
		4,331,654	05/25/1982	Morris			
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		4,777,145	10/11/1988	Luotola et al.			
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		4,978,610	12/18/1990	Forrest et al.			
		5,091,206	02/25/1992	Wang et al.			

EXAMINER	Date Considered
<p>*Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.</p>	

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		5,178,947	01/12/1993	Charmot et al.			
		5,232,782	08/03/1993	Charmot			
		5,238,810	8/24/1993	Fujiwara et al.			
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		5,541,072	7/30/1996	Wang et al.			
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		5,807,758	09/15/1998	Lee et al.			
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		US20020068187	06/06/2002	O'Connor et al.			
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		US20040086885	05/06/2004	Andres et al.			
		US20040247924	02/24/2003	Andres et al.			

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Examiner Initial	Copy Enclosed	Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
	X	WO 03/072830	09/04/2003	PCT				
	X	WO 04/003508	01/08/2004	PCT				
	X	WO 03/073444	09/04/2003	PCT				

OTHER DOCUMENTS (Including Authors, Title, Date, Pertinent Papers, etc.)

Examiner Initial	Copy Enclosed	Document Description
		Andres et al., "Self-Assembly of a Two-Dimensional Superlattice of Molecularly Linked Metal Clusters" <i>Science</i> , 1996, 273: p. 1690
	X	Baselt et al., "A Biosensor Based on Magnetoresistance Technology" <i>Biosensor Bioelectronics</i> , 1998;13:731-739.
	X	Baselt et al., "A High-Sensitivity Micromachined Biosensor" <i>Proceedings of the IEEE</i> , 1997;85:672-680
	X	Baselt et al., "Biosensor Based on Force Microscope Technology" <i>J. Vac. Sci. Technol.</i> , 1996;B14(2):789-793
	X	Bowles et al., "Generation of Supported Metal Clusters of Controlled Size", <i>J. Molec. Catalysis</i> , 1983;20:279-287.

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		Carpenter et al. "Effects of Shell Thickness On Blocking Temperatures Of Nanocomposites Of Metal Particles With Gold Shells" <i>IEEE Transactions of Magnetism</i> , 1999;35(5):3496-3498.
		Chao et al. "Synthesis of a Supported Metal Catalyst Using Nanometer-Size Clusters", <i>Journal of Colloid and Interface Science</i> , 1994;165:290-295.
	X	Clays et al., "Enhancement of the Molecular Hyperpolarizability by a Supramolecular amylose-dye Inclusion complex, Studied by Hyper-Rayleigh Scattering with Fluorescence Suppression", <i>Chem. Phys. Lett.</i> , 1998,293:337-342.
	X	Dabbousi et al. "(CdSe)ZnS Core-Shell Quantum Dots: Synthesis and Characterization of a Size Series of Highly Luminescent Nanocrystallites" <i>J. Phys. Chem. B</i> 1997;101:9463-9475.
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	X	Demers et al., "A Fluorescence-Based Method for Determining the Surface Coverage and Hybridization Efficiency of Thiol-Capped Oligonucleotides Bound to Gold Thin Films and Nanoparticles", <i>Anal. Chem.</i> , 2000;72:5535-5541.
	X	Geerts et al., "Nanovid Tracking: A New Automatic Method for the Study of Mobility in Living Cells Based on Colloidal Gold and Video Microscopy", <i>Biophys. J.</i> , 1987;52:775-782.
	X	Hayat, M.A., <i>Colloidal Gold: Principles, Methods, and Applications</i> , Academic Press Inc., San Diego, CA, 1989. Title Page and Table of Contents
	X	Kim et al., "Solvatochromism of non-linear Optical Chromophores Containing the Dithienothiophene Group in Donor-Acceptor Molecules", <i>Chem. Phys. Lett.</i> , 1996;255:147-150.
	X	Lee et al., "Direct Measurement of the Interaction Forces Between Complementary Strands of DNA", <i>Science</i> , 1994;266:771-773.
	X	Lee et al., "Sensing Discrete Streptavidin-Biotin Interactions with Atomic Force Microscopy", <i>Langmuir</i> , 1994;10:354-357.

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	X	Lee et al., "Implementation of Force Differentiation in the Immunoassay" <i>Bioanalytical Chemistry</i> , 2000, 287: p. 261-271
		Lin et al. "Gold-Coated Iron (FE@AU) Nanoparticles: Synthesis, Characterization and Magnetic Field Induced Self-Assembly" <i>Journal of Solid State Chemistry</i> 2001;159:26-31.
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	X	Metzger et al., "Development and Characterization of Surface Chemistries for microfabricated Biosensors" <i>J. Vac. Sci. Technol.</i> , 1999;A17:2623-2628.
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	X	Patil et al., "The Minimum-Energy Structure of Nanometer-Scale Gold Clusters" <i>Z. Phys. D.</i> , 1993,26:135-137.
	X	Petty et al., "Characterization of DNA Size Determination of Small Fragments by Flow Cytometry", <i>Anal. Chem.</i> , 1995,67:1755-1761.
	X	Ravel et al., "Oxidation of iron in iron/gold core shell nanoparticles" <i>J. Appl. Phys.</i> , 2002;91:8195-8197.
	X	Sambrook et al., <i>Molecular Cloning: A Laboratory Manual, Books 1-3</i> , Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY, 1989; title page, publisher's page and table of contents only (30) pgs.
	X	Santiago et al., "A particle image velocimetry system for microfluidics", <i>Exp. Fluids</i> , 1998;25:316-319.
	X	Tatusova et al., "BLAST 2 Sequences, a new tool for comparing protein and nucleotide sequences," <i>FEMS Microbiol Lett.</i> , 1999;174(2):247-50.
	X	Turkevich, J. "A Study of the Nucleation and Growth Processes in the Synthesis of Colloidal Gold" <i>Discussions of Faraday Soc.</i> 1951;11:55-75.

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